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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,035	04/15/2004	Devon L. Strawn	MSFT-3488/307555.01	7412

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WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION)
ONE LIBERTY PLACE - 46TH FLOOR
PHILADELPHIA, PA 19103

EXAMINER	
BROOME, SAID A	

ART UNIT	PAPER NUMBER
2628	

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/825,035	STRAWN ET AL.	
	Examiner	Art Unit	
	Said Broome	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether "the display device" discussed in claim 19 is intended to be a device comprising software to render a timeline element and is coupled to a display, or a display device capable of rendering the timeline element itself.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 describes a method of keyframing an object however, no useful, concrete and tangible result is produced because the data is not used to provide a generated display or other indication of resulting keyframing or animation. Therefore, the claimed invention does not posses "real world" value, and instead represents nothing more than a process of keyframing an object.

Claims 19-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 19 describes a display device having renderd thereon a

timeline element for keyframing however, the claimed invention is not statutory because it is neither a process, nor a machine as required under 35 U.S.C. 101.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 13-25, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Skyrme ("*Full Product Review Adobe LiveMotion*").

Regarding claims 1, 13 and 19, Skyrme describes a method of keyframing an object in section 2 page 1 second paragraph line 1 ("Placing an object creates a keyframe at that point and a certain length of display is shown on the timeline..."), and the method is illustrated to be comprised in a computer system having a graphical user interface that is therefore displayed by a display device, as shown in Figure 1 of section 1 on page 2. Skyrme also describes identifying at least one property, as shown in Figure 1 of section 1 on page 2, and a time for the object as described in section 1 page 1 sixth paragraph lines 3-6 ("...when you place an object on the stage...the object transform drop down menu for that object is opened and the Position clock face is clicked...just put a tick in the little box that has opened."). Skyrme also describes creating a first compound key frame at the time object in section 2 page 1 second paragraph line 1 ("Placing an object creates a keyframe at that point and a certain length of display is shown on the timeline as a pink line with a knob at each end."). Skyrme also describes receiving a second

time for the object and creating a second compound key frame at the second time in section 2 page 2 third paragraph lines 1-4 ("If you want to apply a change to the object you can now move forward in the timeline and then apply a filter or action to the keyframe...When played back, the object should tween between the first and second keyframe giving a smooth action."), as shown in Figures 1 and 2 of section 2.

Regarding claims 2, 14 and 20, Skyrme describes receiving additional times for the object and creating associated compound key frames at each of the additional times in section 2 page 2 second paragraph lines 4-5 ("Now you can insert a new keyframe by placing the Current Time Marker at a particular point...") and in the third paragraph lines 2-3 ("The action can be applied by the menu box to the right of the desktop, and is just a matter of selecting the filter and then use sliders or the round symbol to apply the desired effect.").

Regarding claims 3, 15 and 21, Skyrme describes receiving the second time for the object comprises moving a playhead to a position on a timeline in a user interface, the position corresponding to the second time in section 2 page 1 second paragraph line 1 ("Placing an object creates a keyframe at that point and a certain length of display is shown on the timeline as a pink line with a knob at each end.") and in section 2 page 2 second paragraph lines 4-5 ("Now you can insert a new keyframe by placing the Current Time Marker at a particular point...").

Regarding claims 4, 16 and 22, Skyrme illustrates entering an animate mode prior to creating the first compound key frame in Figure 1 of section 1 where a user interface is shown that comprises an animation mode that is initialized to enable the user to enter in keyframes, in which after user input timelines are displayed as shown in the Figure.

Regarding claims 5 and 17, Skyrme illustrates that each of the first and second compound key frames represents the state of the at least one property on the object at the associated time in Figure 1 of section 1, where it is shown that properties are represented as diamond icons.

Regarding claims 6, 18 and 23, Skyrme describes comprising receiving a change to the at least one property prior to creating the second compound key frame, the second compound key frame incorporating the change to the at least one property in section 2 page 2 third paragraph lines 1-4 ("If you want to apply a change to the object you can now move forward in the timeline...When played back, the object should tween between the first and second keyframe giving a smooth action.").

Regarding claims 7, 18 and 24, Skyrme describes creating an attribute key frame responsive to the received change to the at least one property if no attribute key frame exists for the at least one property at the time the received change is received, and changing an existing attribute key frame responsive to the received change to the at least one property if the existing attribute key frame exists at the time the received change is received in section 1 page 1 sixth paragraph lines 3-7 ("By dragging your image around on stage, tweens are automatically inserted between keyframes...This only happens if the object transform drop down menu for that object is opened..."), where it is described that applied property for the keyframes is adjusted from the transform drop down menu, and the resultant change is represented on the user interface as shown in Figure 1 of section 1 and in Figure 2 of section 2.

Regarding claims 8 and 25, Skyrme teaches a method of keyframing an object in section 2 page 1 second paragraph line 1 ("Placing an object creates a keyframe at that point and a certain length of display is shown on the timeline..."), the method is also illustrated to be

comprised in a computer system having a graphical user interface that is therefore displayed by a display device, as shown in Figure 1 of section 1. Skyrme illustrates receiving a value for an attribute or property for the object at a first time, as a white diamond icon in Figure 1 of section 1; if an attribute key frame corresponding to the attribute exists at the first time, then amending the attribute key frame responsive to the received value for the attribute in section 1 page 1 sixth paragraph lines 3-7 ("...if the object transform drop down menu for that object is opened and the Position clock face is clicked...When the play head is activated, the object will follow smoothly, the path that has been created."), where it is described that the property chosen from the transform drop down menu is applied to the keyframe and represented on the user interface as shown in Figure 1 of section 1 and in Figure 2 of section 2; otherwise, populating a neighboring object key frame with an attribute key frame if an object key frame exists, in section 1 page 1 sixth paragraph lines 3-7 ("...tweens are automatically inserted between keyframes...This only happens if the object transform drop down menu for that object is opened and the Position clock face is clicked."), where it is described that object key frames are populated, or tweened, between property, or attribute, keyframes, as shown in Figure 1 of section 1.

Regarding claim 30, Skyrme describes a method of providing an on-object user interface in section 2 page 1 second paragraph line 1 ("Placing an object creates a keyframe at that point and a certain length of display is shown on the timeline..."), the method is also illustrated to be comprised in a computer system having a graphical user interface that is therefore displayed by a display device, as shown in Figure 1 of section 1. Skyrme describes receiving a selection signal indicative of the user interface selection device selecting an object in section 2 page 1 second paragraph line 1 ("Placing an object creates a keyframe at that point and a certain length of

display is shown on the timeline..."). Skyrme also describes receiving a selection signal indicative of the user interface selection device selecting a property of the object to change in section 1 page 1 sixth paragraph lines 3-7 ("...when you place an object on the stage...the object transform drop down menu for that object is opened and the Position clock face is clicked...just put a tick in the little box that has opened."), as shown in the Figure 1 of section 1, where the input properties are represented as diamond icons. Skyrme also illustrates displaying a user interface in proximity to the object in Figure 1 of section 1.

Regarding claim 31, Skyrme describes the displayed user interface indicates when changes done in an authoring tool user interface are being recorded by an animation system in section 2 page 2 third paragraph lines 1-4 ("If you want to apply a change to the object you can now move forward in the timeline...When played back, the object should tween between the first and second keyframe giving a smooth action."), and as shown in Figures 1 and 2 of section 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-12 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skyrme.

Regarding claim 9, though Skyrme does not explicitly teach creating an attribute key frame at the first time if neither an attribute key frame nor an object key frame exists at the first

time, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a user interface that enables attribute values that are created and initialized for the first time interval because this would provide a visual representation of an animation keyframe that would be easily edited or manipulated, as described in section 1 page 1 sixth paragraph lines 3-7 ("...the object transform drop down menu for that object is opened and the Position clock face is clicked. If you need extra keyframes, move the Current Time Marker Current Time Marker (play head) to where you want it, and just put a tick in the little box that has opened."), and therefore the diamond icon is may be initially displayed by the user representing that attribute value, as shown in Figure 1 of section 1.

Regarding claims 10 and 27, though Skyrme does not explicitly teach that if the neighboring object key frame exists later in time than the first time, and an attribute key frame exists later in time than the first time, then setting a first value to the value of the attribute key frame that exists later in time than the first time, it would have been obvious at the time of invention to provide an animation interface that enables the user to apply an attribute value that reduces the amount of input for setting the attribute value for each frame through applying the initial value to all the successive frames, as described in section 2 page 2 third paragraph lines 1-4 ("If you want to apply a change to the object you can now move forward in the timeline and then apply a filter or action to the keyframe. The action can be applied by the menu box to the right of the desktop...to apply the desired effect. When played back, the object should tween between the first and second keyframe giving a smooth action."), as shown in Figure 2 of section 2 where the diamond icon representing the opacity attribute is set for both the initial time 0, as well as at a later period in time prior to the time value 1, where the second attribute value is set to

the first value and is therefore blended, which reduce the amount ofo input required for each frame. Though Skyrme does not explicitly teach that if the neighboring object key frame that exists later in time than the first time, and an attribute key frame does not exist later in time than the first time, then setting the first value to the value of the last attribute key frame recorded or a base value if none exists, and creating and displaying a new attribute key frame at the neighboring object key frame using the first value, it would have been obvious to one of ordinary skill in the art at the time of invention to provide an animation keyframe of interpolated frames that indicate if only one attribute is set at the first time then during the tweening or blending of the frames, the attribute value of every neighboring frame is set to that the initial attribute value for the frames, unless a second attribute value is created along the timeline, as described in section 1 page 1 sixth paragraph lines 3-7 ("...if the object transform drop down menu for that object is opened and the Position clock face is clicked...When the play head is activated, the object will follow smoothly, the path that has been created.") and in section 2 page 1 first paragraph lines 4-5 ("Each layer has a series of attributes already in place and more can be added at any time, including extra layers. The attributes and filters applied to a layer or object affect only that object or layer..."), because that would reduce the burden on the user to set an attribute value to every frame of animation.

Regarding claim 11 and 28, though Skyrme does not explicitly teach that if the object key exists later in time than the first time, and an attribute key frame exists later in time than the first time, then setting a first value to the value of the attribute key frame that exists later in time than the first time, it would have been obvious at the time of invention to provide an animation interface that enables the user to apply an attribute value that reduces the amount of input for

setting the attribute value for each frame through applying the initial value to all the successive frames, as described in section 2 page 2 third paragraph lines 1-4 ("If you want to apply a change to the object you can now move forward in the timeline and then apply a filter or action to the keyframe. The action can be applied by the menu box to the right of the desktop...to apply the desired effect. When played back, the object should tween between the first and second keyframe giving a smooth action."), as shown in Figure 2 of section 2 where the diamond icon representing the opacity attribute is set for both the initial time 0, as well as at a later period in time prior to the time value 1, where the second attribute value is set to the first value and is therefore blended, which reduces the amount of input for each frame. Though Skyrme does not explicitly teach that if the object key that exists later in time than the first time, and an attribute key frame does not exist later in time than the first time, then setting the second value to the value of the originally received value for the attribute, and creating and displaying a new attribute key frame at the neighboring object key frame using the second value, is described in section 1 page 1 sixth paragraph lines 3-7 ("...if the object transform drop down menu for that object is opened and the Position clock face is clicked...When the play head is activated, the object will follow smoothly, the path that has been created.") and in section 2 page 1 first paragraph lines 4-5 ("Each layer has a series of attributes already in place and more can be added at any time, including extra layers. The attributes and filters applied to a layer or object affect only that object or layer..."), where it is described that the object keyframes are responsive to the attribute keyframes applied to the timeline, as shown in Figure 1 of section 1 as diamond icons, and the attribute values along the timeline are blended, therefore the attribute value of every successive frame is set to that value.

Regarding claim 12 and 29, though Skyrme does not explicitly teach that if the object key exists later in time than the first time, and an attribute key frame exists later in time than the first time, then setting a first value to the value of the attribute key frame that exists later in time than the first time, it would have been obvious at the time of invention to provide an animation interface that enables the user to apply an attribute value that reduces the amount of input for setting the attribute value for each frame through applying the initial value to all the successive frames, as described in section 2 page 2 third paragraph lines 1-4 ("If you want to apply a change to the object you can now move forward in the timeline and then apply a filter or action to the keyframe. The action can be applied by the menu box to the right of the desktop...to apply the desired effect. When played back, the object should tween between the first and second keyframe giving a smooth action."), as shown in Figure 2 of section 2 where the diamond icon representing the opacity attribute is set for both the initial time 0, as well as at a later period in time prior to the time value 1, where the second attribute value is set to the first value and is therefore blended. Though Skyrme does not explicitly teach that if the object key that exists later in time than the first time, and an attribute key frame does not exist later in time than the first time, then setting the first value to the value of the originally received value for the attribute, and creating and displaying a new attribute key frame at the neighboring object key frame using the first value, it would have been obvious to one of ordinary skill in the art at the time of invention to provide keyframes of interpolated frames that indicate if only one attribute is set at the first time then during the tweening or blending of the frames, the attribute value of every neighboring frame is set to that the initial attribute value for the frames, unless a second attribute value is created along the timeline, as described in section 1 page 1 sixth paragraph lines 3-7 ("...if the

object transform drop down menu for that object is opened and the Position clock face is clicked...When the play head is activated, the object will follow smoothly, the path that has been created.") and in section 2 page 1 first paragraph lines 4-5 ("Each layer has a series of attributes already in place and more can be added at any time, including extra layers. The attributes and filters applied to a layer or object affect only that object or layer..."), because that would reduce the burden on the user to set an attribute value to every frame of animation, as shown in Figure 1 of section 1 represented as diamond icons.

Regarding claim 26, though Skyrme does not explicitly teach displaying an attribute key frame at the first time if neither an attribute key frame nor an object key frame exists at the first time, it would have been obvious to one of ordinary skill in the art at the time of invention to provide keyframes that indicate the attribute value of every neighboring frame is set to the initial attribute value for the frames, as described in section 1 page 1 sixth paragraph lines 3-7 ("...the object transform drop down menu for that object is opened and the Position clock face is clicked. If you need extra keyframes, move the Current Time Marker Current Time Marker (play head) to where you want it, and just put a tick in the little box that has opened."), because that would provide a smooth animation with a reduced burden on the user to initialize an attribute value for every frame.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Said Broome whose telephone number is (571)272-2931. The examiner can normally be reached on 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571)272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S. Broome
7/20/06 SB

MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600